

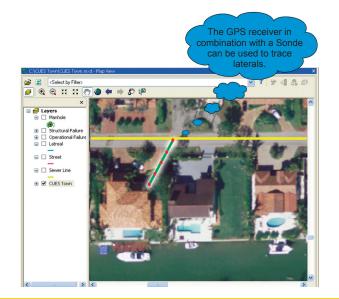
Introducing the *NEW GPS Backpack Mapping Kit!*

The CUES GPS Backpack Mapping Kit allows field users to collect GPS coordinates with a 'hands free' operation to conduct asset inspections and perform data entry while using a mobile PC. The GPS Backpack Mapping Kit works with the Granite XP Asset Inspection & Decision Support Software, in conjunction with the Granite XP ESRI module, to provide valuable locating and positioning solutions. The GPS Backpack Mapping Kit provides the ability to display and record Sewer (Manhole & Lateral Assets), Storm, Fiber, and Gas Pipeline coordinates from a GPS receiver and transfer this information seamlessly to Granite XP to map the location of these assets. The kit includes a Trimble® GPS Pathfinder® ProXT $^{\mathsf{TM}}$ receiver for a complete turnkey solution.



Features & Benefits:

- Display and obtain the GPS coordinate(s) for the following assets:
 - the single coordinate of the Sewer (lateral clean-out, lateral at the main, etc.), Storm, Gas, and Fiber Nodes
 - GPS coordinates of the Main or Lateral Assets (coordinates will be captured based on the precision of the GPS receiver (e.g. WAAS, SBAS, etc.)
 - the single coordinate of a specific observation
- Estimate a coordinate for an intermediate location based on the known coordinates of the nodes, footage, and lengths
 of a line
- In Granite XP, view the current state and coordinate that's transmitted by the GPS receiver in real time to the software.
- The GPS Backpack Mapping Kit supports the NMEA-0183 compatible GPS receivers.
- Gather GPS coordinates and estimate depth using optional built-in sonde within the camera to plot "No Dig" line traces
- Use either a serial cable or Bluetooth® to connect the GPS Pathfinder ProXT receiver to the PC.
- The GPS Pathfinder ProXT receiver can be used to capture real-time coordinates for specific municipal assets.



This product includes the Trimble® ProXT™ Receiver!



Used in conjunction with the ESRI Module, the GPS Backpack Mapping Kit facilitates the capture and identification of the GPS coordinates, thereby developing and updating your GIS layers! The system Includes patent-pending technology and the ability to map laterals to avoid crossbores!

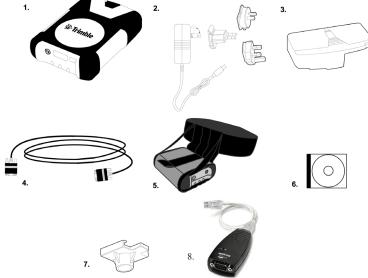
The CUES GPS Backpack Mapping Kit consists of the following items:

- 1. Trimble GPS Pathfinder ProXT receiver key features:
 - · Real-time submeter GPS with integrated SBAS and
 - EVEREST™ multipath rejection technology
 - · Receiver, antenna, and battery in one compact unit
 - Rugged and weatherproof for all conditions

User-replaceable battery lasts a full day in the field

- 2. Power supply & international AC adapter kit
- 3. Battery pack 5V
- 4. Null modem cable
- 5. GPS Pathfinder Pro Series Pouch
- 6. Software & Getting Started Guide CD
- 7. Screw thread mount adapter
- 8. USB to Serial adapter
- 9. 1 foot (1') Pole Segment
- 10. Trimble Backpack





The Trimble backpack is made from heavy-duty, high-visibility nylon. It has interior straps and pockets for securing equipment, padded adjustable shoulder straps and waist belt, and a rugged interior aluminum frame. This pack offers a convenient method of transporting and managing GIS instrumentation.

The GPS Data is collected; accuracy information (based on the number of satellites, signal quality, etc. available at the time of capture) is recorded; and in conjunction with the Granite XP ESRI Module, the coordinates can be presented in the ArcGIS Map!

To manage the inspection process more effectively, Granite XP can be used as an auditing tool to display and map various pipeline layers with the GPS coordinates. In the screen below, the GIS map depicts a blinking light to display the approximate location of the GPS receiver to the crew. This ensures safety for the operators in the field as well as any homes/facilities that may be too close to a possible hazard.



The symbol represents the real-time GPS coordinates that are being collected in the field.

Field technicians can validate GPS coordinates with actual footage provided by the camera robot to identify buried asset locations.